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**UNITED STATES DISTRICT COURT**  
**FOR THE NORTHERN DISTRICT OF CALIFORNIA**  
**SAN FRANCISCO DIVISION**

SAMSUNG ELECTRONICS CO., LTD.,  
a Korean corporation,

Plaintiff,

v.

PANASONIC CORPORATION,  
a Japanese corporation; PANASONIC  
CORPORATION OF NORTH AMERICA,  
a Delaware corporation; and SD-3C LLC, a  
Delaware limited liability company.

Defendants.

Case No. 10-3098 JSW

**FIRST AMENDED COMPLAINT**

**DEMAND FOR JURY TRIAL**

1 Plaintiff Samsung Electronics Co., Ltd. (“Samsung”), by its attorneys, brings this  
2 action for damages, a declaratory judgment and injunctive relief, against Defendants Panasonic  
3 Corporation, Panasonic Corporation of North America (collectively “Panasonic”) and SD-3C  
4 LLC (“SD-3C”) (together with Panasonic, “Defendants”). Samsung alleges as follows:

### 5 INTRODUCTION

6 1. Three major competitors in critical markets for products and technology  
7 have entered into an illegal and ongoing combination, the purpose and effect of which is to give  
8 themselves a permanent advantage that injures both competition and consumers. They usurped  
9 the work of an open standard-setting organization in order to establish their own proprietary  
10 standard that artificially requires other industry participants to use technology owned by them.  
11 Through their combination, they now exploit control of this manipulated standard to raise their  
12 competitors’ costs, to discourage competing innovations, and to seek to stabilize prices across  
13 the industry. While claiming to have engaged in legitimate standard-setting and licensing  
14 activities, they are, in effect, a disguised cartel.

15 2. The Secure Digital Memory Card (“SD Card”) is a high-speed flash  
16 memory card incorporating certain security features. SD Cards have become the dominant  
17 format in the flash memory card industry and are widely used in digital cameras, mobile  
18 telephones and other electronic devices purchased by U.S. consumers. Panasonic, SanDisk and  
19 Toshiba (collectively, the “SD Group members”) claim to own technology essential to the  
20 manufacture of SD Cards. Through their jointly-owned and -controlled affiliate, SD-3C, these  
21 companies require every new entrant into the SD Card market to secure from SD-3C an SD  
22 Memory Card License Agreement (“SD Card License”). By means of this license, and on terms  
23 agreed between Defendants, SanDisk and Toshiba, the SD Group members continue to impose  
24 on new and prospective manufacturers and sellers of SD Cards what amounts to an “entry fee”  
25 that raises the costs of competing SD Card manufacturers and causes ongoing harm to new and  
26 current sellers and manufacturers of SD Cards. The SD Card License also contains unequal  
27 grantback provisions that have the effect of reducing the incentives of competitors to develop  
28 their own alternative SD Card technologies. As the SD Card standard has gained broader

1 market acceptance, Panasonic and the other SD Group members, working through SD-3C, have  
2 sought to exploit their control of purportedly essential SD Card technology to impose  
3 increasingly onerous and anticompetitive terms on potential licensees, including—through  
4 active efforts by SD-3C in 2007 and more recently—terms that would have the effect of placing  
5 a floor on SD Card prices.

6           3. Although purporting to operate like a patent pool, the licensing  
7 arrangements among Defendants and the other SD Group members generate none of the  
8 procompetitive benefits that might otherwise justify an agreement among horizontal competitors  
9 to combine their patent rights and license them out at a single price. Because Panasonic,  
10 SanDisk and Toshiba have withheld critical patent rights from the pool, the SD Card License  
11 does not offer licensees the efficiency of being able to obtain all of the rights owned by the SD  
12 Group members needed to manufacture SD Cards. Moreover, notwithstanding illusory  
13 disclaimers to the contrary in recent versions of the SD Card License, Panasonic and the other  
14 SD Group members do not offer industry participants any alternative to executing the SD Card  
15 License—with its built-in “entry fee”—in order to manufacture SD Cards.

16           4. Nor are Defendants and the other SD Group members engaged in a  
17 legitimate form of standard-setting. The agreements among three major competitors to replace  
18 an existing open standard format with the SD Card and then to jointly license their rights to that  
19 card at a single price cannot be justified on efficiency grounds. Panasonic, SanDisk and  
20 Toshiba initially agreed to develop the SD Card in August 1999. At that time SanDisk was a  
21 member of the MultimediaCard Association (“MMCA”), an open standard-setting process with  
22 numerous other industry participants that was working to develop a MultimediaCard (“MMC”)   
23 standard based on a format originally developed by SanDisk. The MMCA was fully capable of  
24 developing an upgraded version of the MMC format that would incorporate the limited number  
25 of incremental features of the SD Card format. Panasonic, SanDisk and Toshiba bypassed that  
26 open standard-setting process when they—as three leading competitors in the market—entered  
27 into an agreement among themselves to devise a modification of the existing MMC  
28 specification to serve as the first version of the SD Card specification. Having excluded the

1 other MMCA member companies from their deliberations, the SD Group members then  
2 manipulated the SD Card specification to ensure that it arbitrarily required the use of patent  
3 rights owned by SD Group members. The agreement between Panasonic, SanDisk and Toshiba  
4 to alter the MMC specification outside of the MMCA did not produce material procompetitive  
5 efficiencies in the development of a standard for a high-speed secure flash memory card.  
6 Instead, it served instead as the means by which these companies, acting in concert with SD-3C,  
7 could secure for themselves a dominant market position. The anticompetitive agreements and  
8 conduct of Defendants, SanDisk and Toshiba that are the subject of this complaint seek to  
9 maintain and exploit that unlawfully acquired dominance.

10           5. The agreements between Defendants, SanDisk and Toshiba violate  
11 Sections 1 and 2 of the Sherman Act. They violate Section 1 because they are agreements  
12 between competitors that suppress competition and that create anticompetitive effects that are  
13 not outweighed by countervailing procompetitive benefits. They violate Section 2 of the  
14 Sherman Act because the agreements constitute a conspiracy to monopolize the market for SD  
15 Card technology. That conspiracy has resulted in the unlawful acquisition and maintenance by  
16 SD-3C, acting on behalf of the members of the SD Group, of a monopoly in the market for SD  
17 Card technology—a further violation of Section 2. In addition, Defendants have engaged in  
18 patent misuse by demanding royalties on the sale of unlicensed memory under the SD Card  
19 license and have violated both the Cartwright Act and Section 17200 of the California Business  
20 and Professions Code.

21           6. As a licensee, manufacturer, and supplier of SD Card components and  
22 finished SD Cards, Samsung has been repeatedly injured by its and its customers' ongoing  
23 inability to avoid the anticompetitive terms of the SD-3C licensing regime, and more generally  
24 the effects of the illegal combination. Samsung is dependent both on its own ability and its  
25 customers' ability to compete effectively in the SD Card and related markets. The efforts by  
26 SD-3C and the SD Group members, including the new and affirmative steps taken in September  
27 2006 and more recently, to control the markets for SD Cards and related products and  
28 technologies undermines, on an ongoing basis, the ability of Samsung and its customers to

1 compete. Samsung continues to suffer injury as a result of Defendants' violations of federal and  
2 state law.

### 3 **THE PARTIES**

4 7. Plaintiff Samsung Electronics Co., Ltd. is a corporation organized under  
5 the laws of the Republic of Korea with its principal place of business at 416 Maetan-dong,  
6 Youngtong-gu, Suwon, Kyunggi-Do, 443-742, Korea.

7 8. Defendant Panasonic Corporation is a Japanese corporation, with its  
8 headquarters at 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. Prior to October  
9 2008, Panasonic Corporation was known as Matsushita Electric Industrial Co., Ltd.

10 9. Defendant Panasonic Corporation of North America ("PNA"), a Delaware  
11 corporation, is, upon information and belief, a wholly owned subsidiary of Panasonic  
12 Corporation, with its principal place of business at One Panasonic Way, Secaucus, New Jersey  
13 07094, and is doing business in this district.

14 10. Defendant SD-3C LLC is a Delaware limited liability company with its  
15 principal place of business at 180 Montgomery Street, Suite 1840, San Francisco, California  
16 94104. On information and belief, SD-3C has conducted licensing activities through its agent,  
17 Miller, Kaplan, Arase & Co. LLP, at that address.

### 18 **JURISDICTION AND VENUE**

19 11. This Court has subject matter jurisdiction over this action under 28 U.S.C.  
20 §§ 1331, 1337(a), and 1367, insofar as Samsung seeks declaratory relief addressing issues  
21 arising under federal patent and antitrust law and asserts claims of violations of the Sherman  
22 Act. The Court has also jurisdiction under 28 U.S.C. § 1332, in that the matter in controversy is  
23 between a citizen of a foreign state and citizens of a state, and the amount in controversy,  
24 exclusive of interest and costs, exceeds \$75,000. The Court may grant declaratory relief in this  
25 action pursuant to 28 U.S.C. §§ 2201 and 2202.

26 12. A substantial part of the events or omissions giving rise to this Complaint  
27 occurred in this District. Upon information and belief, SD-3C transacts business in this District,  
28 both directly and through its agent, and is subject to personal jurisdiction in this District.

Furthermore, SD-3C has consented to venue in this District. As such, venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400 and 15 U.S.C. § 22.

### INTRA-DISTRICT ASSIGNMENT

13. The SD Group members established SD-3C with its principal place of business in San Francisco County, where a substantial part of the events or omissions giving rise to this action occurred. Pursuant to Local Rule 3-2(d), “all civil actions which arise in the count[y] of . . . San Francisco . . . shall be assigned to the San Francisco Division or the Oakland Division.” Therefore, assignment to the San Francisco Division of this Court is appropriate.

### FACTUAL ALLEGATIONS

14. Since their initial development in the late 1980s, flash memory cards have become a key ingredient in the modern information economy, facilitating the storage of constantly increasing amounts of information on ever-smaller devices. Vigorous competition between different technologies and flash card manufacturers during the 1990s helped drive rapid product improvements and steadily declining prices. This complaint relates to the anticompetitive and ongoing agreements arising from the decision of three leading producers of flash memory cards to cease competing with each other and, instead, to seek and maintain market dominance through agreements on future product specifications and royalties charged to the industry. This conduct has raised rivals’ costs and given the conspirators a permanent cost advantage. These anticompetitive and ongoing arrangements do not reflect either legitimate patent-pooling or standard-setting activities and restrict competition in technology and product markets. These efforts harm, and will continue to harm, both Samsung and competition more generally.

#### **A. Background on the Technologies and Products at Issue in this Case**

##### **1. Flash Memory**

15. Flash memory was developed in the early 1980s by Toshiba and is now widely used in consumer electronics devices, either as embedded memory within devices or in the form of flash memory cards that can be slotted into and communicate with those devices.

1           16. One of the distinctive features of flash memory is that it is non-volatile,  
2 meaning that it can retain data without a continuous power source, unlike the Dynamic Random  
3 Access Memory (“DRAM”) traditionally used in computer hard drives. Flash memory is also  
4 solid state, meaning that it contains no moving parts and is therefore shock-resistant. An  
5 additional advantage of flash memory is that it can be read and programmed faster than many  
6 other types of memory.

7           17. These qualities have helped flash memory become the dominant  
8 technology for storing data in numerous types of consumer electronic devices, including digital  
9 cameras, digital audio players and cellular telephones. Flash memory is a critical component in  
10 such commercially successful products as the iPod and the iPhone. It is also increasingly used  
11 in solid state hard drives for personal computers.

12           18. The two main types of flash memory are NOR and NAND. In NOR flash  
13 memory, the memory cells are arranged in parallel. Because this architecture permits random  
14 access to data, NOR flash is well-suited for programming applications, such as code storage and  
15 execution. In NAND flash memory, the cells are arranged in series. While this architecture  
16 prevents random access to data, it allows for significantly faster write and erase operations and a  
17 higher storage density than NOR. These characteristics make NAND the preferred form of flash  
18 memory for use in data storage applications. Accordingly, the flash memory used in consumer  
19 electronic devices is almost exclusively NAND.

20           19. Panasonic, Toshiba and SanDisk each claim patent rights bearing on  
21 NAND flash memory technology. Each of them also demands royalties from other  
22 manufacturers of NAND flash memory based on these rights.

## 23           **2. Flash Memory Cards**

24           20. A significant proportion of NAND flash memory reaches consumers  
25 already built into (or “embedded” in) digital devices. Approximately 40-50 percent of NAND  
26 flash memory output, however, is sold in the form of flash memory cards. Flash memory cards  
27 are portable data storage media that can be inserted directly into compatible slots on host  
28 devices such as laptop computers, digital cameras, and mobile phones. Flash memory cards

1 typically combine a flash memory chip with a “controller” (a chip that manages read, write and  
2 erase instructions received from the host device), packaged together in a plastic casing. Because  
3 of its higher density, NAND flash memory is particularly well-suited for use in flash memory  
4 cards, and the vast majority of flash memory cards in use today incorporate NAND flash  
5 memory chips.

6 21. Flash memory chips, the key component of SD Cards, are made in large,  
7 specialized manufacturing facilities (commonly known as “fabs”) by manufacturers that include  
8 Toshiba, SanDisk (through a joint venture with Toshiba) and Samsung. The chips are combined  
9 with other components to form SD Cards in a separate manufacturing process, either by the  
10 memory manufacturer itself, or by a manufacturer or an assembler to which the memory  
11 manufacturer sells its chips. Panasonic, Toshiba, SanDisk and Samsung all manufacture flash  
12 memory cards. Examples of smaller manufacturers and assemblers include Lexar, A-Data,  
13 Apacer, Corsair Microsystems, Dane-Elec, Kingston, PNY, PQI, Transcend, TSR, Buffalo and  
14 Phison Electronics.

15 22. Samsung is a manufacturer of both flash memory chips and finished SD  
16 Cards. Samsung sells flash memory chips to assemblers who combine the chips with other  
17 components to form SD Cards. Samsung sells, or has sold, flash memory chips to a variety of  
18 manufacturers and assemblers, including Kingston, PQI, Transcend and A-Data. Samsung also  
19 incorporates the flash memory chips into finished SD Cards that Samsung then sells to third-  
20 parties, which include or have included companies such as Lexar, PNY and Memorex, to sell  
21 under their own brand name. Samsung also sells SD Cards directly to device manufacturers,  
22 such as Nokia and RIM, for use in their devices.

23 23. A given flash memory card can be used only in host devices that have a  
24 compatible slot corresponding to that card’s “form factor” (the size and shape of the card) and  
25 appropriate “driver” software (also called host interface software) to allow the host device to  
26 communicate with the memory card. Without the appropriate driver software, an otherwise  
27 physically compatible card (i.e., a card that physically fits into a slot in the host device) may not  
28 work properly in that device.



**B. Background on the Means By Which Panasonic, SanDisk and Toshiba Gained the Dominant Position That They Now Seek to Maintain and Exploit.**

**1. Competition in the Flash Memory Card Industry in the 1990s**

24. The development of flash memory cards since they first appeared in the late 1980s has been affected by two overarching factors. First, flash memory card manufacturers have had to innovate constantly to achieve the smaller form factors, faster processing times, and increased data storage capacities required by design improvements in host devices (for example, the development of smaller, higher resolution digital cameras). Second, because consumers value the convenience of being able to use the same flash memory card format in different host devices, flash memory card manufacturers have an incentive to promote broad acceptance of their own formats. During the 1990s, these two factors fostered vigorous technological competition among flash memory card manufacturers, reflected in the release of numerous competing card formats, accompanied by efforts by individual manufacturers to promote industry-wide adoption of their own formats as open standards.

25. The first flash memory cards were generally proprietary designs, such that each one worked only with that manufacturer's products. By the late 1980s, the industry recognized that in order to advance the acceptance and use of flash memory cards it was necessary to standardize the flash card formats. Accordingly, in 1989, 25 vendors joined together to form a non-profit, open standards organization called PCMCIA (Personal Computer Memory Card International Association) to develop a universal memory card format for laptop computers.

26. The PCMCIA developed a set of protocols describing the form factor and operating characteristics of a NOR-based flash memory card format called the PC Card. The first PC Card specification was published in 1990. The PC Card was an open standard. As an open standard, no company controlled the PC Card format and multiple vendors competed to supply the market with interoperable memory cards that complied with the format.

27. During the mid-1990s, the major flash memory card manufacturers competed to develop smaller memory card formats and to have those formats adopted as open

standards by other manufacturers. Panasonic, Toshiba and SanDisk were prominent horizontal competitors at this time, each developing and promoting new formats of their own.

28. In 1994, SanDisk developed the CompactFlash format, a NOR-based flash memory card with a smaller form factor than the PC Card but that could be used in a PC Card slot by means of an adapter. To promote the card as a standard, SanDisk agreed to transfer its Compact Flash trademark and technical specifications to the CompactFlash Association, an open standard-setting body, which made the specifications available under a royalty-free license to other third-party manufacturers that committed to develop, manufacture and supply CompactFlash products.

29. In 1995, Toshiba launched the SmartMedia format, a small NAND-based flash memory card format with no on-board controller, which it proposed as a standard. The SmartMedia Format was promoted as an open, royalty-free standard by the SSFDC (Solid State Floppy Disk Card) Forum.

30. In 1997, Panasonic announced its own NAND-based flash memory card, the Mega Storage Device, previously known in Japan as the SmallPC Card, to target digital cameras, personal digital assistants, and other portable devices.

31. Also in 1997, Siemens and SanDisk jointly developed and introduced the MultiMediaCard (“MMC Card”) specification, a high-density NAND-based flash memory card format, with a form factor about the size of a postage stamp. The development of the MMC Card was encouraged by Nokia, which wanted a smaller form factor memory card for use in cellular telephones. Nokia encouraged the MMC Card as an open standard.

32. In 1998, Siemens, SanDisk and twelve other companies announced the establishment of the MultiMediaCard Association (“MMCA”) “to make the MultiMediaCard a broadly supported new industry standard.” The MMCA had two types of members, executive and affiliate. At its inception, executive members were asked to pay a modest fee of \$5,000 to join—and to have full voting rights—while affiliate members were asked to pay only \$2,500. All MMCA members were entitled to access and use the MultiMediaCard specification to develop, manufacture and supply MultiMediaCard products on a royalty-free basis. All

1 executive members were entitled to participate on an equal basis in the development of  
 2 specifications and standards. Samsung joined the MMCA in 2002 as an executive member and  
 3 began manufacturing MMC cards at that time. Samsung ceased taking orders for MMC cards in  
 4 2006.

5 33. SanDisk's 1998 SEC Annual Report commented on the "intense  
 6 competition, rapid technological change [and] evolving industry standards" that characterized  
 7 the flash memory card market at that time. The report identified both Toshiba and Panasonic as  
 8 horizontal competitors in the development of flash memory cards and flash memory card  
 9 technology, observing that:

10 Competing products promoting industry standards that are  
 11 different from SanDisk's have been introduced, including Intel's  
 12 Miniature Card, Toshiba's Smart Media (Solid-State Floppy Disk  
 13 Card), Sony Corporation's Memory Stick, and Panasonic's  
 recently introduced Mega Storage cards . . . .

14 34. SanDisk's annual report specifically noted that "our MultiMediaCard  
 15 products are expected to face stiff competition from Toshiba's SmartMedia flash cards" together  
 16 with Sony's Memory Stick.

17 35. But by the time SanDisk released its next annual report, covering the 1999  
 18 calendar year, the company had embarked on a course of action in concert with Panasonic and  
 19 Toshiba that was to alter and fundamentally reduce competition in the flash memory card  
 20 industry.

21 **2. Panasonic, SanDisk and Toshiba Launch Their Initial Joint**  
 22 **Activities.**

23 36. Prior to 1999, Panasonic, SanDisk and Toshiba were major horizontal  
 24 competitors in the flash memory card technology and product markets. Each of these  
 25 companies had supported open standard-setting as a means of gaining a competitive edge for  
 26 their formats. Prior to 1999, open standard-setting was the norm in the flash memory card  
 27 industry for manufacturers that wished to promote broader adoption of a particular format  
 28 among different host manufacturers. While some single-company proprietary formats, such as

1 Sony's Memory Stick, had enjoyed limited commercial success, competitor collaborations to  
2 promote a jointly-owned proprietary standard were highly unusual.

3 37. On August 25, 1999, Panasonic revealed that it was working with SanDisk  
4 and Toshiba pursuant to an agreement that marked a radical departure from the competitive  
5 norms underpinning the development of the industry over the previous decade. Under this  
6 agreement, the three major competitors agreed to develop a modified version of the MMC Card  
7 in a closed process from which other industry participants were excluded.

8 38. As described in SanDisk's 1999 SEC Annual Report, the agreement  
9 announced in August 1999 was:

10 [A] memorandum of understanding under which we, [Panasonic]  
11 and Toshiba will jointly develop and promote a next generation  
12 flash memory card called the Secure Digital Memory Card. The  
13 Secure Digital Memory Card is an enhanced version of our  
MultiMediaCard that will incorporate advanced security and  
copyright protection features . . . .

14 SanDisk further stated that it had:

15 joined forces with [Panasonic] . . . and Toshiba to jointly develop,  
16 specify, and promote the Secure Digital Memory Card [and] [a]s  
17 part of this collaboration, all three companies [would] foster the  
development of application products using the Secure Digital  
Memory Card.

18 39. SanDisk was a founding member of the MMCA, an open standard-setting  
19 organization that had as its mission "to encourage all interested members of industry to join in  
20 the development and marketing of MultiMediaCard-based technologies." As such, the MMCA  
21 was the natural forum for any development work on an enhanced version of the  
22 MultiMediaCard. There was nothing about the additional functionality that the SD Group  
23 members incorporated into the SD Card that would have prevented the MMCA from achieving  
24 the same result under its open standard-setting rules. The combination of Panasonic, SanDisk  
25 and Toshiba—three major horizontal competitors—did not create efficiencies that could not  
26 have been achieved in a manner that preserved competition among these companies. Instead,  
27 this combination of competitors, created in secret, stymied the existing standard-setting process,  
28 and has permitted Panasonic, SanDisk and Toshiba, with SD-3C, to suppress competition to

1 their benefit and without the procompetitive efficiencies that flow from legitimate standard-  
 2 setting activities. There are significant ongoing anticompetitive effects caused by this conduct,  
 3 and by the more recent activities of these three horizontal competitors.

4 40. Indeed, SanDisk's 1999 SEC Annual Report expressly acknowledged that  
 5 Panasonic, SanDisk and Toshiba were not uniquely qualified to bring this additional  
 6 functionality to the marketplace. The annual report observed that "Hitachi, Infineon, Sanyo and  
 7 Fujitsu have proposed their Secure MultiMediaCard which provides the copy protection  
 8 function that is included on our Secure Digital Memory Card."

9 41. On information and belief, Panasonic encouraged SanDisk to join with it  
 10 and Toshiba in developing the SD Card outside of the MMCA structure. In addition to being a  
 11 significant horizontal competitor of SanDisk and Toshiba, as a manufacturer of flash memory  
 12 cards, Panasonic was (like Toshiba) also a major manufacturer (through Panasonic Corporation)  
 13 and seller (through PNA) of host devices, and was therefore well-placed to push for adoption of  
 14 the new format by the consumer electronics industry. The SD Group members induced other  
 15 manufacturers of host devices to adopt the SD Card format by offering them royalty-free  
 16 licenses to incorporate SD Card functionality into their products (in contrast to the  
 17 anticompetitive entry fee later charged to SD Card manufacturers, as described below) and by  
 18 promising to make SD Cards backwardly compatible with the MMC format.

19 42. As further described below, by combining their respective market weights,  
 20 Panasonic, SanDisk and Toshiba could thus achieve critical mass for the new format under rules  
 21 of their own choosing, without having to resort to open standard-setting. As an official of  
 22 SanDisk, then the largest manufacturer of flash memory cards in the world, stated at the time:  
 23 "The combination of these three firms gives strength. That's why they came to SanDisk."

### 24 **3. Panasonic, SanDisk and Toshiba Agree to Evade the Even-Handed** 25 **Protections of Open Standard-Setting.**

26 43. If Panasonic, SanDisk and Toshiba had chosen to proceed within the  
 27 MMCA, their standard-setting activity would have been subject to the MMCA Policies and  
 28 Procedures (the "MMCA Policies"). Under the MMCA Policies, the SD Group members would

1 have been required to circulate to other members a request for approval to proceed with a  
 2 change to the MMCA Standard, and the change would then have been considered and approved  
 3 by the relevant technical committee of the MMCA and subsequently by the MMCA Board of  
 4 Directors. In furtherance of their long-term anticompetitive goals, the SD Group members  
 5 deliberately evaded such an open process.

6 44. In addition, the SD Group members would have been subject to the  
 7 MMCA's disclosure and licensing policy on intellectual property. That policy would have  
 8 required disclosure to the group of any patent rights covered by the SD Group members'  
 9 proposal. The MMCA's rules provided:

10 When considering whether proprietary technology should be  
 11 included, the Association balances the benefits of such  
 12 technology with the burden of compliance with licensing  
 13 requirements. As such, it is essential to the Association's  
 14 success that it be fully informed of the existence of proprietary  
 technology in any proposal for inclusion in the specification,  
 at the first showing of that proposal in an Association meeting.

15 Any party submitting a proposal for inclusion in the  
 16 specification will be required to disclose, at the time of  
 17 submittal, all known proprietary technology included in the  
 18 submission. . . . The Association expects that the proposal  
 19 sponsor will use reasonable diligence to determine if  
 proprietary technology is included in the proposal. Failure to  
 use reasonable diligence or make this disclosure is grounds for  
 expulsion from the Association.

20 45. Such disclosure would have allowed the MMCA members to assess the  
 21 potential licensing costs associated with the new proposal, secure non-discriminatory licensing  
 22 commitments, and take into account their policy preference for technologies that can be licensed  
 23 royalty free or on reasonable terms, according to which:

24 [T]he Association will only include a member company's  
 25 proprietary technology in it's [sic] specification if the owner of  
 26 that technology agrees to reasonable and nondiscriminatory  
 licensing terms set forth below.

27 Rather than work within these constraints and submit the development of the SD Card to the  
 28 MMCA, however, Panasonic, SanDisk and Toshiba agreed to combine among themselves

1 outside of the standard-setting process. The effect and necessary purpose of the steps taken by  
2 these three major competitors to subvert and bypass the open standard-setting work of the  
3 MMCA was to establish a proprietary standard that they themselves could dominate. Freed  
4 from the MMCA's even-handed rules and patent disclosure and licensing policies, and working  
5 instead as a combination of competitors, the SD Group members have put in place and (with  
6 SD-3C) continue to enforce a regime for the SD Card that is designed to maintain and exploit  
7 that dominance.

#### 8 **4. The SD Group Members' Manipulation of the SD Card Specification**

9 46. Panasonic, SanDisk and Toshiba issued the first version of the SD Card  
10 specification (the "Specification") in March 2000.

11 47. The SD Group members' approach to the Specification represented a  
12 radical departure from the previous practice in the flash memory card industry, reflected by such  
13 open standards organizations as the CompactFlash Association and MMCA. During the 1990s,  
14 SanDisk and other manufacturers had encouraged industry-wide adoption of formats they had  
15 already developed by allowing competitors to implement the corresponding specification on a  
16 royalty-free basis. The August 1999 agreement among Panasonic, SanDisk and Toshiba, by  
17 contrast, implemented arbitrary amendments to the existing MMC specification that the three  
18 companies subsequently would share only with memory card manufacturers that promised to  
19 pay a hefty royalty and subject themselves to the other restrictions imposed by the SD Group  
20 members.

21 48. By choosing to agree among themselves on the Specification without  
22 inviting input from or making disclosure to other parties, the SD Group members ignored  
23 guidance addressed to, among others, Panasonic and Toshiba by the U.S. Department of Justice  
24 ("the DOJ") in a business review letter of June 10, 1999 related to DVD licensing practices.  
25 That letter described the potential anticompetitive nature of the inclusion in patent pools of non-  
26 essential patents. In view of the economic incentive that collaborating licensors have "to  
27 combine in the pool their competing . . . patents and to foreclose others' competing patents," the  
28 DOJ stressed the importance of engaging a genuinely independent expert "to undertake a



1 disinterested review of the ‘essentiality’ of the patent rights put forward.” The DOJ’s letter also  
2 warned that inclusion in a pool of one of several competing non-essential patents could  
3 “unreasonably foreclose the non-included competing patents from use by manufacturers.”

4           49. Defendants failed to comply with the DOJ guidance in several ways. By  
5 excluding other companies from their deliberations, and by failing to engage an independent  
6 expert, the SD Group members were able to craft a Specification that, to this day, favors their  
7 own intellectual property rights and fails to ensure a “pool” limited to essential patents. The SD  
8 Group members did this by drafting the Specification to mandate particular technological  
9 solutions for certain new features that could have been left to the discretion of the manufacturer  
10 without affecting the core functionality of the card. Members of the SD Group then filed patent  
11 applications to cover the mandated solutions.

12           50. For example, SD-3C asserts that the Specification cannot be implemented  
13 without infringing two Panasonic patents covering a mechanical write protect switch that  
14 prevents consumers from accidentally overwriting the card and destroying data, images or  
15 audio. Those patents derive from applications first filed by Panasonic on August 6 and 24,  
16 1999—contemporaneously with Panasonic’s agreement with the SD Group members and  
17 immediately before the SD Group members’ first public announcement on August 25, 1999 that  
18 they were collaborating on the creation of an SD Card. There was no sound reason to require  
19 the practice of Panasonic’s technology in this way. To the contrary, the SD Group members  
20 could have written the Specification so as to allow mechanical write protection to be  
21 implemented by a variety of means. By unnecessarily including in its “pool” a write protection  
22 technology owned by one of its members, the SD Group members unreasonably foreclosed  
23 choice in the use of alternatives by manufacturers.

24           51. As a result of the arbitrary and self-interested way in which Panasonic and  
25 the other SD Group members have created a Specification that requires the practice of their own  
26 patents to implement non-essential features, alternative technologies for implementing such  
27 features in a more cost-effective manner have been restrained. By writing a Specification that  
28 artificially rendered their own patents “essential,” the SD Group members also created the basis



1 for a licensing scheme that now effectively insulates the SD Group members from competition.

2 **5. The Unequal Rules Imposed by the SD Group Members on the SD**  
 3 **Association**

4 52. The SD Group members announced the establishment of the SD  
 5 Association (“SDA”) on January 6, 2000, at a joint press conference at the Consumer  
 6 Electronics Show in Las Vegas. The SD Group members required, as a condition of  
 7 membership in the SDA, that companies agree to observe association rules designed by the SD  
 8 Group members. The SDA was created, and has been controlled and supported by the SD  
 9 Group members, in furtherance of their proprietary standard and ongoing combination. PNA,  
 10 for example, hosted the SDA website without charge until 2007 as part of this combination.

11 53. As described below, these rules had the effect of entrenching the SD Group  
 12 members’ own dominant position within the organization, and supporting its ability to maintain  
 13 a dominant position in the SD Card and related markets. In particular, the SD Group members  
 14 set up, and have maintained through their control and support, an Intellectual Property Policy  
 15 (the “IP Policy”) structure for the SDA that now assists them in hiding the nature of the putative  
 16 “essential” patents and furthers their ability to license these patents only through SD-3C and at a  
 17 single price.

18 54. The IP Policy created by the SD Group members is unlike the policy of the  
 19 MMCA or those of other legitimate standard-setting bodies. The SDA IP Policy requires  
 20 disclosure of relevant intellectual property rights by some, but not all, of the members.  
 21 Members who are subject to the disclosure requirements must identify, for example, the name  
 22 and title of an issued patent, as well as the patent number, the date of filing, the date of issuance,  
 23 the jurisdiction of issuance, and the patent holder’s name and address. SD-3C and the members  
 24 of the SD Group, however, are exempted from this detailed disclosure. Instead, the IP Policy  
 25 provides for a general notice that the SD Specification contains “intellectual property held by  
 26 the SD-3C, LLC and/or [the SD Group members] licensed by the SD-3C, LLC through . . . the  
 27 SD Memory Card License Agreement,” and further states that this vague notice “shall be a  
 28 sufficient disclosure for purposes of th[e] IP Policy.”

1           55. The IP Policy thus allows SD-3C and the members of the SD Group to  
2 avoid disclosing the specific patents owned by Panasonic, SanDisk and Toshiba that they  
3 contend are essential for implementation of the Specification. SD-3C has explicitly confirmed  
4 that it does not disclose all of the purportedly essential patents included in its license. Instead,  
5 to date, SD-3C has disclosed on its website only nine patents owned by the members of the SD  
6 Group that “are necessarily and unavoidably infringed by a product that implements the secure  
7 digital technology in compliance with the SD Group Specifications.” According to SD-3C, the  
8 list of patents “is for information purposes only, it is offered by way of example and may not be  
9 exhaustive.” As described later in this Complaint, individual members of the SD Group have  
10 similarly refused to provide definitive accounts of the patents owned by them that they claim to  
11 be essential for the implementation of the Specification.

12           56. In a business review letter of November 12, 2002 concerning 3G wireless  
13 communications technology, the DOJ indicated that the pooling of patents among competitors  
14 might be justified where there was “the potential for efficiencies with respect to the generation  
15 and dissemination of information about essential . . . patents, and the identification and  
16 evaluation of which patents are actually essential” to the technology in question. The agreement  
17 among Panasonic, SanDisk and Toshiba to combine their SD Card patents cannot be justified on  
18 this ground. The members of the SD Group make affirmative efforts, directly and through the  
19 use of their faulty SDA rules and otherwise, to bypass the prior MMCA rules and similar  
20 standard-setting protections that would stimulate the “generation and dissemination of  
21 information” about their patents, and would permit an evaluation as to whether their patents  
22 were in fact essential (e.g., if the pool helps to clear blocking patents). Instead, the members of  
23 the SD Group have avoided the disclosure of patents claimed by them to be essential to  
24 implementation of the Specification and have not demonstrated that these patents are otherwise  
25 blocking or essential. By creating doubt among other industry participants as to the actual scope  
26 of their patents bearing on SD Cards, the SD Group members’ non-disclosure policy  
27 discourages third party innovation in SD Card technologies and thereby harms competition.  
28 This conduct is not consistent with the activities of a legitimate standard-setting body.

1           57. Even if the creation of the SD “standard” could have been justified on the  
2 basis of its potential efficiencies, the rules imposed on the SDA, and now maintained, by the SD  
3 Group members were not necessary to achieve those efficiencies, and had the effect of  
4 suppressing innovation and competition. Moreover, even if the combination among the SD  
5 Group members could have been justified 10 years ago when the SD Card was first produced,  
6 the continued and ongoing agreements among three major competitors to maintain a dominant  
7 position in the SD Card and related markets cannot be justified today, given the absence of  
8 current efficiencies that could outweigh the combination’s ongoing anticompetitive effects.

9                   **6. Suppression of Competing Formats**

10           58. In addition to exercising collective control over the SD Card format, the  
11 members of the SD Group restrain competition by suppressing the emergence of new competing  
12 formats. The members of the SD Group have agreed to avoid competing with the SD Card  
13 format or technology, and do avoid such competition, as part of their overall agreement to create  
14 and maintain a dominant market position for themselves. This restraint on competition is not  
15 justified in light of the anticompetitive effects of the overall agreement among Defendants and  
16 the members of the SD Group.

17           59. Moreover, on multiple occasions, one or more members of the SD Group,  
18 acting in furtherance of their unlawful purposes, have participated in anticompetitive conduct  
19 designed to impede the development of MMC formats that would have competed with SD  
20 Cards. For example, in March 2006, SanDisk intervened at the last minute in negotiations at the  
21 European Telecommunications Standards Institute (ETSI), disclosing MMC-related patent  
22 rights in order to prevent the adoption by ETSI of an MMC-based standard for high-speed SIM  
23 (Subscriber Identity Module) cards for use in mobile phones. SanDisk informed ETSI that it  
24 would not provide the commitment to license other manufacturers on “fair reasonable and non-  
25 discriminatory terms” that ETSI’s rules required in order to move forward with an MMC-based  
26 SIM card standard. SanDisk had failed to disclose these same patents to the MMCA while it  
27 was a member of the board of directors and/or an executive member of that organization. By  
28 contrast, SanDisk told ETSI that it would agree to license its patents on fair, reasonable and

1 non-discriminatory terms to other vendors for a SIM card standard based on USB, rather than  
2 MMC, technology. As a result of SanDisk's intervention, ETSI's decision on high-speed SIM  
3 cards was delayed. After SanDisk had made an unsuccessful attempt to persuade ETSI to adopt  
4 an SD Card-based standard, ETSI eventually opted for the USB option notwithstanding the fact  
5 that, according to contemporary reports, "handsets that can run MMC-based SIMs could reach  
6 the market as much as 18 months before comparable USB-based handsets."

7           60. On information and belief, other members of the SD Group were informed  
8 of and approved SanDisk's anticompetitive actions in ETSI. By discouraging the adoption of  
9 standards based on the MMC format in European and other regional standard-setting  
10 organizations, SD Group members successfully sought to prevent the format from achieving  
11 sufficient scale to be a commercially viable alternative to the SD Card standard anywhere in the  
12 world, including the United States.

13           **C. The SD Group Members' Current Efforts, With SD-3C, To Maintain and**  
14           **Exploit Their Dominant Position.**

15           61. The anticompetitive conduct accompanying the establishment of the SD  
16 Card regime described above served as a foundation for Defendants' current and continuing  
17 illegal efforts, with SanDisk and Toshiba, to maintain and exploit the dominant position that the  
18 SD Group members have created for themselves. By creating and manipulating a specification  
19 from which other industry participants were excluded, the members of the SD Group gave  
20 themselves the ability to extract an "entry fee" toll from all other manufacturers and sellers of  
21 SD Cards. By using their combined weight in the host device market, including through PNA,  
22 to drive adoption of SD technology in consumer electronic devices, by aggressively  
23 undercutting open standard alternatives such as MMC, and by their continued agreement to  
24 support only the SD Card format, the members of the SD Group have helped the SD Card to  
25 become and remain the dominant flash memory card format.

26           62. Building on this foundation, Defendants, SanDisk and Toshiba now seek to  
27 exploit the dominant position they have created for themselves and to prevent the emergence of  
28 alternative flash memory card formats that could undermine their dominance. To this end, and

1 notwithstanding boilerplate language introduced in the most recent versions of the SD Card  
 2 License, the SD Group members require each existing and potential manufacturer of SD Cards  
 3 to execute an SD Card License through SD-3C that has the effect of restricting competition and  
 4 discouraging innovation. The royalty payments required under the SD Card License have the  
 5 effect of raising the costs of every competing manufacturer of SD Cards. The license's unequal  
 6 grantback requirement provides competitors with a strong disincentive to develop their own  
 7 technology. The members of the SD Group have sought further to undermine the pricing  
 8 freedom of their competitors by attempting to impose new license conditions designed to give  
 9 the SD Group members the ability to set a "floor price" and to enforce that pricing through the  
 10 threat of immediate termination (thereby putting at risk a licensee manufacturer's substantial  
 11 sunk costs).

12 63. As described in more detail below, Defendants' ongoing anticompetitive  
 13 conduct has injured and continues to injure both Samsung and competition generally.

14 **1. The SD Group Members' and SD-3C's Anticompetitive Licensing**  
 15 **Agreements**

16 64. Panasonic, SanDisk, Toshiba and SD-3C require all current and new  
 17 manufacturers and sellers of SD Cards to accept and execute the SD Card License. The  
 18 members of the SD Group, jointly with SD-3C, provide no alternative to the SD Card License.  
 19 Through this requirement, Panasonic, SanDisk and Toshiba effectuate their agreement to jointly  
 20 license their SD Card technologies exclusively through SD-3C at a single price.

21 65. The SD Card License grants licensees rights to the purportedly essential  
 22 patent claims of the SD Group members, the Specification, and the SD logo and trademark. In  
 23 contrast to the royalty-free terms on which rights to CompactFlash, the MMC Card and other  
 24 formats had previously been offered, the SD Card License requires licensees to pay a 6 percent  
 25 royalty on their net sales of SD Cards, with fixed adjustments only for sales volume.

26 66. SD-3C has provided Samsung with two versions of the SD-3C license, one  
 27 in March 2003 (the "2003 Agreement"), and another in September 2006 (the "2006  
 28 Amendment"). As described in detail below, although varying in some respects, both versions

1 contain key anticompetitive provisions, and neither provides an effective means by which to  
 2 obtain licenses from the SD Group members to the rights granted in the SD Card License. The  
 3 SD Card License remains for all practical purposes the exclusive means by which the SD Group  
 4 members license their SD Card technology.

5 **2. The SD Group Members Have Refused to Negotiate Over the Terms**  
 6 **of the SD Card License.**

7 67. The SD Group members, acting through SD-3C and in furtherance of their  
 8 agreement to impose controls over competing SD Card manufacturers, have consistently refused  
 9 to negotiate over the terms of the SD Card License.

10 68. In early 2003, Samsung sought to obtain an SD Memory Card License at  
 11 the request of a customer that wished to sell SD Cards assembled by Samsung using Samsung  
 12 memory components. Samsung first communicated with an employee of Panasonic and Mr.  
 13 Hiro Miyauchi of Toshiba Corp. Samsung tried to negotiate a license directly with Panasonic,  
 14 but Panasonic refused and referred Samsung to SD-3C. Toshiba directed Samsung to Michael  
 15 Quackenbush, who was acting as SD-3C's licensing agent. Mr. Miyauchi of Toshiba provided  
 16 Samsung with Mr. Quackenbush's contact information at the San Ramon office of Lindquist  
 17 LLP. Samsung approached Mr. Quackenbush to secure a license to produce SD Memory Cards.

18 69. Mr. Quackenbush refused, on behalf of the SD Group members, to engage  
 19 in any negotiations of license terms with Samsung. For example, Samsung asked early in this  
 20 discussion that Mr. Quackenbush send a Word version of the SD Memory Card License  
 21 proposed by the SD Group members, to facilitate the exchange of counter-proposals. After  
 22 initially indicating his assent to this proposal, Mr. Quackenbush subsequently communicated to  
 23 Samsung that: "I have been asked to not provide the license agreement in a word file to any  
 24 company. The SD-3C managers are concerned about anyone making changes to the  
 25 agreement." The SD Card License therefore was offered to Samsung without any opportunity  
 26 for modification or negotiation of its terms.

27 70. On September 24, 2003, Samsung signed the agreement in the form offered  
 28 by SD-3C, without being given any ability to modify or negotiate the contract. The agreement

1 was subsequently signed by officials of Panasonic, SanDisk and Toshiba on behalf of SD-3C.  
2 The effective date of the agreement was November 11, 2003.

3 71. In early September 2006, SD-3C requested a meeting with Samsung to  
4 present and discuss its 2006 Amendment. Defendants, Toshiba, and SanDisk had met the prior  
5 week (the week of August 28, 2006) in Osaka, Japan, to devise and agree upon this amended  
6 version of the SD Card License.

7 72. The meeting between SD-3C and Samsung took place at Hwasung, Korea,  
8 on September 4, 2006. At the meeting, Mr. Quackenbush requested—and Samsung gave—  
9 confirmation that Samsung intended shortly to begin making and selling SD Cards. He then  
10 described the changes made by the 2006 Amendment to the SD Card License executed by  
11 Samsung in 2003, the initial three-year term of which was due to expire on November 11, 2006.

12 73. Following the meeting in Korea, Mr. Quackenbush emailed Samsung and  
13 other SD-3C licensees on September 19, 2006, attaching the 2006 Amendment and demanding  
14 that the licensees sign the new agreement. Once again, SD-3C provided no opportunity to  
15 negotiate the terms of the 2006 Amendment, which was offered on a take-it-or-leave-it basis.  
16 Samsung decided not to sign the new agreement and instead to allow the annual renewal  
17 provision of its existing SD Card License to take effect.

18 74. SD-3C, acting on behalf of Panasonic and the other SD Group members,  
19 continued to demand that Samsung execute the 2006 Amendment, including through  
20 correspondence on February 1 and 3, 2007, but did not engage in any negotiations over its  
21 terms. Samsung again refused to sign the 2006 Amendment. On information and belief, other  
22 manufacturers and/or assemblers of SD Cards have executed the 2006 Amendment.

23 **3. The SD Card Group Provided No Alternative to the SD Card License**  
24 **and Its Provisions.**

25 75. The refusal of Defendants, Toshiba, and SanDisk to negotiate over the  
26 terms of the SD Card License ensured that their competitors—competing manufacturers and  
27 sellers of SD Card components and finished SD Cards—would be subjected to the royalty and  
28 other provisions of the SD Card License. In furtherance of this agreement, the SD Group



1 members also agreed to provide no mechanism by which to separately license their own claimed  
2 essential patents.

3           76. The 2003 Agreement contains no provision permitting separate licenses of  
4 the Essential Patents or other intellectual property from the SD Group members or otherwise. It  
5 is, by its terms, the sole vehicle for securing the SD Card rights.

6           77. Pursuant to Section 2.1 of the 2003 Agreement, Samsung (and other  
7 licensees) received a “non-exclusive license, on a worldwide basis during the term hereof, to  
8 make, design, have made, use, offer for sale, sell, import, export or otherwise dispose of SD  
9 Memory Cards . . . under the Essential Patent Claims Licensable by Licensor.” The fact that the  
10 license was “non-exclusive” did not mean that it was available from other sources. Instead, the  
11 ordinary meaning of “non-exclusive” in this context is that the license did not grant Samsung  
12 exclusive rights to the SD Card technologies licensed under the agreement. In fact, pursuant to  
13 this provision, other licensees, such as A-Data, Delkin Devices and Phison Electronics, have  
14 obtained licenses from SD-3C.

15           78. The 2006 Amendment also did not realistically permit separate licensing of  
16 the rights granted by the SD Card License. The 2006 Amendment included preambulatory  
17 language and an Article 12.5 purporting to affirm the right of licensees “to separately negotiate  
18 a license with any or all SD Group members under any and all Essential Patent Claims  
19 Licensable by each such SD Group member under terms and conditions to be independently  
20 negotiated by each such member.” This is contrary to the position taken by the individual  
21 members of the SD Group in their communications with Samsung, including as recently as  
22 during 2010. As detailed below, each of the SD Group members has represented that it lacks  
23 the authority to license the essential patent claims that are jointly owned by the members of the  
24 SD Group.

25           79. The agreement of Defendants, Toshiba and SanDisk to require competing  
26 manufacturers to execute an SD Card License is also confirmed by their public statements. For  
27 example, the SD-3C website states explicitly that:  
28



1           You need to execute the [SD Card License] if you are making  
2           semi-conductor memory products (e.g., flash memory cards, ROM  
3           cards, SD I/O Combo Cards, miniSD Cards) which utilize SD  
4           technology (for example, cards based on the SD Group  
5           Specifications (as defined in the [SD Card License])).

6           80. Even if the purported right to independently license were effective, it  
7           would address only a portion of the rights—the putatively “Essential Patent Claims” owned by  
8           individual members of the SD Group—granted by the SD Card License. In essence, the 2006  
9           Amendment provides that even if licensees could negotiate separate licenses for these Essential  
10          Patent Claims from individual members of the SD Group, those licenses would be in addition to,  
11          rather than a substitute for, the continuing requirement on industry participants to execute the  
12          SD Card License—and thereby pay the SD Group members an “entry fee”—if they wish to  
13          manufacture SD Cards. As a consequence, whether or not individual rights can be obtained  
14          from individual SD Group members, it is still necessary for any manufacturer or seller of SD  
15          Cards to hold a license from SD-3C.

16          81. In particular, the SD Card Specification, logo and other trademarks are not  
17          licensable by individual SD Group members. In communications with Samsung, Mr.  
18          Quackenbush, SD-3C’s licensing agent, has taken the position that this intellectual property is  
19          available only from SD-3C. For example, on April 14, 2007, Mr. Quackenbush, acting on  
20          behalf of Defendants and the other members of the SD Group, refused to provide Samsung with  
21          requested logo guidelines for the second generation SD Cards, explaining instead that this  
22          intellectual property is “only used by licensees who have signed the [2006 Amendment].” By  
23          conditioning the use of this intellectual property on Samsung’s willingness to accept the terms  
24          of the 2006 Amendment, SD-3C confirmed that this intellectual property is available only from  
25          SD-3C.

26          82. The SD Group members also use their control over the SD Card  
27          Association to further the requirement that all competing manufacturers of SD Cards execute the  
28          SD Card License. As explained on the SD Association website, “the SD Association’s  
Licensing Program operates in conjunction with SD-3C” and “SD-3C, LLC represents the

1 interests of the founding patent holders—Panasonic, SanDisk, and Toshiba—while also serving  
2 as the licensing authority for all SD technology.” The SD Card Association requires SD Card  
3 manufacturers to execute its license (known as the “License Agreement for SDA Memory Card  
4 Specification or LAMS”), which obligates licensees to “acknowledge and agree” that  
5 manufacturing or selling “SD Memory Cards requires [the] Licensee to enter into the” SD Card  
6 License with SD-3C.

7 83. As described above, even if the SD Group members were willing to enter  
8 into separate licenses for their “Essential Patents,” Samsung (or another licensee) would still  
9 need to obtain an SD Card License. That license provides on its face for a 6 percent royalty  
10 rate, and neither the 2003 Agreement nor the 2006 Amendment provide a mechanism for  
11 reducing the 6 percent royalty in the event that a party successfully obtained separate licenses  
12 from individual members of the SD Group. Mr. Quackenbush confirmed in December 2006, for  
13 example, that SD-3C “required a royalty to be paid to SD-3C since the [second generation SD  
14 Card also] uses SD-3C technology.” As described below, moreover, SD-3C, acting on behalf of  
15 the SD Group members, has informed Samsung that the SD-3C License is non-negotiable. In  
16 these ways, the members of the SD Group have ensured that the entry fee imposed by the SD-  
17 3C license will apply to all other manufacturers and sellers of SD Cards. Because any licensee  
18 is required by the terms of the 2003 and 2006 agreements to pay a 6 percent royalty whether or  
19 not it separately licenses rights to certain patents from the individual members of SD-3C, and  
20 because the terms of the SD-3C licenses are not negotiable, the offer that a licensee could also  
21 negotiate separately for patent rights with individual members of SD-3C (and thereby pay an  
22 additional royalty on top of the 6 percent fee required by SD-3C) renders that offer to license  
23 separately an illusion.

#### 24 4. The SD Group Members Refuse to Negotiate Separate Licenses for 25 their Essential Patents

26 84. In communications with the individual members of the SD Group,  
27 including Mr. Richard Chernicoff from SanDisk, Mr. Hiroshi Miyauchi from Toshiba, and Mr.  
28 Tetsyuki Watanabe from Panasonic, Samsung has repeatedly stated that it does not wish to pay

1 the SD-3C royalties, and sought information directly from the SD Group members about their  
2 claimed essential patent rights. No member of the SD Group has indicated a willingness to  
3 negotiate a separate license with Samsung for SD rights pursuant to Article 12.5 of the 2006  
4 Amendment. Instead, all three members of the SD Group have taken the position that the  
5 jointly owned Essential Patents can be licensed only through SD-3C. Moreover, two members  
6 of the SD Group have taken actions to preclude such negotiations or such a license.

7           85. Critically, Defendants, Toshiba, and SanDisk have refused to disclose  
8 purportedly “essential patents” that would, in the absence of the license, be infringed by a  
9 product that implements the SD Specification. As described earlier in the Complaint, through  
10 their control and support of SDA, the SD Group members have developed and maintain SDA  
11 rules that excuse the SD Group members from disclosing this information under the IP Policy.  
12 Defendants, Toshiba and SanDisk also did not provide this information in the 2003 Agreement  
13 or the 2006 Amendment. They also have not provided this information through SD-3C, which  
14 similarly failed to identify all of the purportedly essential patents, and instead lists on its website  
15 only nine patents “for information purposes only” and “by way of example” and further notes  
16 that the list “may not be exhaustive.” The SD Group members also have refused to disclose this  
17 information in bilateral discussions with Samsung. By denying licensees information about  
18 their individual patent holdings, the SD Group members have effectively impeded any effort to  
19 negotiate separate licenses with individual members of the SD Group.

20           86. For example, Samsung asked Panasonic during discussions in 2009 to  
21 identify the patents owned by Panasonic that are essential to the manufacture of SD Cards and  
22 therefore conveyed as part of the SD Card License. Pressed on this point by Samsung,  
23 Panasonic identified its five illustrative essential patents as listed on the SD-3C website and  
24 eventually showed Samsung a list of 29 patents Panasonic “believe[d] are SD essential patents  
25 although they ha[d] not yet been evaluated by a third party evaluator.” Panasonic, however,  
26 refused to allow Samsung to retain a copy of the list or to confirm that the list was a definitive  
27 and comprehensive description of Panasonic’s essential SD Card patents.

28

1           87. Similarly, in 2007, Samsung asked SanDisk to identify the patents owned  
2 by SanDisk that are essential to the manufacture of SD Cards and therefore conveyed as part of  
3 the SD Card License. SanDisk refused to provide Samsung with this information.

4           88. By declining to provide the requested information on their putative  
5 essential patents, Panasonic and SanDisk eliminated any ability on the part of Samsung to  
6 negotiate a separate license for these patents. In so doing, Panasonic and SanDisk acted in  
7 furtherance of the ongoing and renewed anticompetitive agreement between the members of the  
8 SD Group and SD-3C to continue requiring industry participants wishing to manufacture SD  
9 Cards to execute an SD Card License.

10           89. Moreover, as recently as this year, Panasonic has insisted that Samsung  
11 deal directly with SD-3C in matters involving licensing of rights to manufacture SD Cards, in  
12 lieu of expressing a willingness to engage in separate licensing discussions. For example, in a  
13 letter of January 18, 2010, responding to Samsung's concerns about the scope of the claimed  
14 "essential patents," and whether they included certain of Panasonic's claimed patents, Mr.  
15 Tetsuyuki Watanabe, Director of Panasonic's Licensing Center stated:

16           [Y]our primary grievance appears to stem from your interpretation  
17 of the [SD Card License] to cover flash memory patent claims as  
18 Essential Patent Claims. Although we believe there is no  
19 ambiguity about it, and that the flash memory claims are clearly  
20 excluded, you are kindly requested to contact SD-3C, LLC,  
21 should you have any questions.

22           **5. The SD Group Members Seek to Exploit Their Dominance By**  
23           **Stabilizing SD Card Prices.**

24           90. The 2006 Amendment also contained two provisions that, taken together,  
25 provide Defendants, Toshiba, and SanDisk with the ability to stabilize SD Card prices by setting  
26 a "floor price," as well as the ability to monitor and enforce this floor price.

27           91. First, Article 7.3 of the Amended and Restated Memory Card License  
28 ("2006 Amendment") gives to SD-3C the power to determine a "fair market price" for SD Cards  
that would serve as a minimum reference price for the calculation of licensees' royalty  
obligations. Under this provision, if a licensee sets a retail price below "fair market price" set  
by SD-3C, it will be directly penalized by having to pay a higher percentage of its actual retail

price as royalty to SD-3C. For example, if the SD-3C determined that the “fair market price” was \$50, and the licensee actually charged only \$40, it would still need to pay SD-3C a 6 percent royalty based on \$50 (or \$3), thus effectively charging the licensee a 7.5 percent royalty (\$3 royalty on a \$40 price).

92. The effect of the “floor price” provision is to constrain the ability of licensees to sell SD Cards at prices below a level determined by Panasonic, SanDisk and Toshiba. By agreeing to include this provision in the 2006 Amendment and to coerce licensees into accepting it, Defendants, SanDisk and Toshiba can exploit their market power to ensure that the price of SD Cards is set at a level of their choosing.

93. Second, Panasonic and the other SD Group members included in the 2006 Amendment a provision that would permit them to enforce the “floor price” by giving them power over the licensee’s continued ability to produce SD Cards. The 2003 Amendment provided a three-year license that was renewable at the licensee’s option for up to 10 years. Under this version of the SD Card License, SD-3C could terminate the agreement only in the event of a material breach or a failure to perform any material obligation on the part of the licensee. That provision gave the licensee protection for the significant sunk cost investments in infrastructure and other capital requirements necessary to produce SD Cards.

94. By contrast, Article 14.1 of the 2006 Amendment gave SD-3C (and, through it, the SD Group members) the ability to terminate the agreement each year on the anniversary of the effective date, until the maximum 10-year term of the agreement. This new term increased the SD Group members’ leverage over licensees, whose sunk cost investments would now be at the mercy of their competitors, and would greatly increase the pressure to conform to floor pricing levels set by members of the SD Group.

## **6. The SD Group Members Seek to Maintain Their Dominance Over SD Card Technology Through Improper Grantback Requirements.**

95. The SD Card License also includes a grantback provision that has the effect of entrenching the SD Group members’ control over SD Card technology. Article 2.4 of the SD Card License requires licensees to grant to each member of the SD Group:

1 under the Essential Patent Claims Licensable by Licensee, a non-  
2 exclusive, non-transferable, royalty-free license to and release  
3 from any and all claims of infringement, on a worldwide basis, to  
4 make, design, have made, use, offer to sell, sell, import, export or  
5 otherwise dispose of SD Memory Cards . . . .

6 96. The requirement that licensees give SD Group members royalty-free access  
7 to any new essential technology they might develop contrasts with the 6 percent royalty  
8 demanded by SD Group members for their own essential patent claims. This provision ensures  
9 that licensees can expect to receive no financial reward for developing technology for use in SD  
10 Cards and submitting the technology for inclusion in the Specification. This provision  
11 necessarily has the effect of limiting licensees' development and contribution of technology that  
12 would reduce the share of SD Card technology owned by the SD Group members and SD-3C.

13 97. The grantback provision of the SD Card License fails to protect against the  
14 threat of anticompetitive harm associated with such provisions. In its 1999 business review  
15 letter related to DVD licensing practices, the DOJ recognized the potential for grantback  
16 provisions to result in "significant discouragement of research and development." The letter  
17 indicated that this potential can be alleviated by arrangements that ensure that licensees subject  
18 to a grantback provision benefit from introducing new essential patents into the pool.

19 98. The SD Card License grantback provision lacks the critical redeeming  
20 feature highlighted by DOJ—that is, the ability of a licensee to benefit from its innovation  
21 efforts. Instead, innovation on the part of a licensee will support royalties earned by the SD  
22 Group members, which undermines or eliminates the incentive for innovation.

23 99. Moreover, the anticompetitive effect of the grantback provision is  
24 magnified because licensees do not have access to the SD Group members' claimed essential  
25 patent portfolios. That failure to disclose further impedes the ability of the licensees to design  
26 improvements, or otherwise take into account the claimed essential patents, and impairs the  
27 ability of licensees to identify intellectual property (even their own) that might be subject to the  
28 grantback provision. In contrast to a legitimate patent pool, which is based on transparency, the  
secretive operation of the SD Group members' combination increases its anticompetitive

1 effects.

2 100. For these reasons, the grantback provision's significant potential to harm  
3 competition among technologies outweighs any potential procompetitive benefit.

4 **7. The SD Card License Does Not Convey All of the Rights to Make an**  
5 **SD Card From the SD Group Members.**

6 101. Panasonic, SanDisk and Toshiba claim substantially all of the flash  
7 memory technology rights needed to manufacture an SD Card. Instead of including these rights  
8 within the scope of the SD Card License, however, these companies have agreed to hold back  
9 their flash memory rights from the SD Card License. Each of Panasonic, SanDisk and Toshiba  
10 requires competing manufacturers of SD Cards to license their respective flash memory rights in  
11 separate bilateral license agreements.

12 102. Consistent with these requirements, the SD Card License requires licensees  
13 to pay a 6 percent royalty, but by its terms does not provide licensees with all the rights needed  
14 to manufacture an SD Card. Article 2.3 of the SD Card License provides:

15 "IT IS EXPRESSLY UNDERSTOOD THAT THE RIGHTS AND LICENSES  
16 GRANTED PURSUANT TO THIS AGREEMENT DO NOT EXTEND TO ANY  
17 SEMICONDUCTOR MEMORY TECHNOLOGY OR SEMICONDUCTOR  
PROCESS/PACKAGING TECHNOLOGY."

18 103. By requiring SD Card licensees to enter into separate bilateral transactions  
19 for their memory technology, the SD Group members have eliminated any efficiency benefit  
20 stemming from the pooling of their putative essential SD Card patents in the SD Card License.  
21 To the contrary, the need to license the SD Group members' intellectual property both from SD-  
22 3C and from the members themselves increases the transaction costs for a licensee seeking to  
23 manufacture SD Cards. That increased cost and decreased efficiency is particularly striking  
24 because the SD Group members simultaneously require licensees to negotiate memory licenses  
25 with them directly and refuse to offer the rights to all of the SD Card-related technology during  
26 that negotiation.

27 104. The separate licensing of memory technology also provides the SD Group  
28 members with an additional opportunity to extract additional royalties from licensees that



1 increase the cost advantage enjoyed by SD Group members in the manufacture of SD Cards.

2 105. That cost advantage is magnified by the structure of the SD Card License  
3 royalty itself. Although the SD Card License purports to exclude flash memory rights from its  
4 scope, and although the SD Group members charge licensees for the rights to that intellectual  
5 property, the SD Card License nonetheless bases royalties on the memory portion of the SD  
6 Card.

7 106. Specifically, the SD Card License provides that the 6 percent royalty is  
8 payable on net sales of SD Cards, rather than on a per-card basis. The price of an SD Card, and  
9 therefore the amount of royalty owed, is generally proportional to the amount of flash memory  
10 contained within it. For example, the advertised price of SanDisk SD/SDHC Cards at  
11 www.flash-memory-store.com on July 15, 2010 was \$9.95 for 2 GB, \$14.95 for 4 GB, \$21.95  
12 for 8 GB, \$34.95 for 16 GB and \$73.95 for 32 GB. The cost of non-memory components in SD  
13 Cards does not vary significantly, regardless of the memory capacity of the card in which they  
14 are incorporated. By requiring royalties to be calculated based on net sales, the SD Card  
15 License therefore effectively requires that licensees pay a royalty with respect to the quantity of  
16 memory included in an SD Card, even though that memory is expressly excluded from the  
17 scope of the license grant.

18 **8. Panasonic, SanDisk and Toshiba Continue to Renew and Reaffirm**  
19 **Their Unlawful Agreement With SD-3C.**

20 107. Defendants, SanDisk and Toshiba continue actively to further their  
21 anticompetitive agreement, and have continually reaffirmed and renewed the anticompetitive  
22 arrangements among themselves designed to maintain their monopoly of SD Card technology  
23 and their dominance of the SD Card markets. In November 2007, for example, the members of  
24 the SD Group and SD-3C executed a Second Amended and Restated Master Licensing  
25 Agreement renewing the SD Group members' agreement to collectively license their SD Card  
26 technology only through SD-3C and at a single price.

27 108. In furtherance of these renewed and ongoing agreements, the SD Group  
28 members have taken the position in their bilateral negotiations with Samsung that they lack the



1 authority to negotiate separate licenses with SD Card manufacturers for any jointly owned SD-  
 2 3C intellectual property. Similarly, the SD Group members prevent SD-3C from varying the  
 3 terms of its license, thereby rendering ineffective any potential separate license of essential  
 4 patents. By these means, the SD Group members and SD-3C continue to ensure that any  
 5 licenses granted by individual SD Group members would still require payment of an additional  
 6 “entry fee,” not paid by members of the SD Group, that the SD Card License imposes on rival  
 7 manufacturers of SD Cards.

8 **9. The SD Card License is Part of the SD Group Members’ Broader**  
 9 **Effort to Jointly Create and Maintain a Permanent Cost Advantage**  
 10 **Over Competitors.**

11 109. The effect and necessary purpose of the agreements among Panasonic,  
 12 SanDisk, Toshiba and SD-3C has been to impose and maintain costs on competitors that the  
 13 members of the SD Group do not itself bear. To this end, in parallel with their agreement to  
 14 license their SD Card patents through SD-3C at a single price, the members of the SD Group  
 15 have entered into cross-licensing arrangements that granted them royalty-free access to the  
 16 patents for which they charge others an entry fee. In its annual report for 1999, for example,  
 17 SanDisk disclosed:

18 While other flash card manufacturers will be required to pay the  
 19 SD Association license fees and royalties which will be shared  
 20 between [Panasonic], Toshiba and SanDisk, there will be no  
 royalties or license fees payable among the three companies for  
 their respective sales of the Secure Digital Memory Card.

21 110. On information and belief, the SD Group members continue to abide by  
 22 these cross-licensing arrangements. In conjunction with the other elements of their licensing  
 23 arrangements, including the agreement to license SD Card technology only through SD-3C and  
 24 at a single price, to withhold critical memory technology from the SD Card license, to impose  
 25 an entry fee on competitors, and to impose unequal grantback and price stabilization provisions  
 26 on licensees, this cross-licensing agreement allows three major competitors to enjoy a  
 27 permanent cost advantage over other competing manufacturers and sellers of SD Cards. This  
 28 combination does not provide efficiencies that outweigh its significant anticompetitive effects.

**D. The Effects of Defendants' Conduct on Competition and on Plaintiff's Business**

111. The illegal and ongoing combination among Defendants and the other members of the SD Group has suppressed competition in the markets for SD Cards and related technologies and products. That combination has caused, and continues to cause, injury to Samsung and other current and new entrants into these markets. The SD Card, including second generation form factors such as miniSD and microSD, is now the dominant format in the flash memory card market. The SDA states that it is "the de-facto industry standard" and that "SD technology is used by more than 400 brands across dozens of product categories and in more than 8,000 models." SD Cards (including miniSD and microSD Cards) accounted for more than 80 percent of all flash memory cards sold worldwide in 2009. MMC cards, by contrast, represent only a negligible portion of the flash memory cards sold and used by consumers. Defendants are perpetuating their illegal combination to maintain the dominance of this format and their control over it, and to restrain competition from other SD Card manufacturers and other products and technologies.

112. The conspiracy between Defendants and the other members of the SD Group has suppressed the emergence of new and different flash memory card formats. In contrast to the profusion of new formats entering the market during the 1990s, no significant alternative to the SD Card format has been introduced since the SD Card was launched in 2000. SD Group members have reduced competition in flash memory card technology, including by agreeing among themselves not to compete with the SD Card format, by imposing grantback provisions on SD Card manufacturers that inhibit the emergence of new and improved technologies, and by actively impeding the emergence of competing new formats. Consumers have been harmed by the resulting diminution in choice between flash memory card formats, by the decreased innovation in SD Card and flash memory technologies, and by the restraints imposed on the SD Card and related markets by Defendants, Toshiba and SanDisk.

113. Samsung is suffering ongoing injury as a result of the illegal combination among Defendants, Toshiba and SanDisk. Samsung manufactures and supplies flash memory

1 card components and finished SD Cards in competition with the SD Group members, including  
2 to such companies as Nokia and RIM. As a manufacturer, Samsung is injured by the  
3 anticompetitive effects of the illegal combination, including by the permanent cost advantage  
4 that the SD Group members have created for themselves in this market, which have diminished  
5 Samsung's ability to compete for sales of these products.

6 114. As a supplier of flash memory card components and finished SD Cards to  
7 other manufacturers and assemblers, Samsung has been injured and is continuing to be injured  
8 by the anticompetitive effects of the illegal combination, including by the permanent cost  
9 advantage that the SD Group members have created for themselves in this market. This  
10 ongoing cost advantage diminishes the ability of these manufacturers and assemblers to compete  
11 for sales against the SD Group members, thereby depressing Samsung's sales to these  
12 customers. Further, this ongoing cost advantage diminishes Samsung's ability to compete  
13 effectively for sales of SD Card components against the SD Group members. As a result, on an  
14 ongoing basis, continuing to the present, Samsung sells fewer SD Card components and finished  
15 SD Cards to its customers than would otherwise be the case. For example, multiple customers  
16 have decreased or withdrawn component orders as a result of the costs imposed by the SD  
17 Group members' and SD-3C's illegal combination on sales of SD Cards. Moreover, Samsung's  
18 sales of finished SD Cards to customers have diminished since 2007 as the additional costs  
19 imposed by the illegal combination have hindered retail sales of SD Cards by non-SD Group  
20 members. For example, during this time, one of Samsung's SD Card customers switched its  
21 source of supply to Toshiba and away from Samsung. Toshiba, like Panasonic, enjoys the  
22 permanent cost advantage created by the illegal combination, and therefore has a continuing and  
23 ongoing cost advantage against Samsung as a supplier of SD Cards and components to third-  
24 party customers.

25 115. Further, as a manufacturer of SD Cards, Samsung has been required to  
26 abide by the SD Card License without any opportunity to renegotiate its anticompetitive terms,  
27 or to separately license the intellectual property rights from the SD Group members. Pursuant  
28 to the license, Samsung has been required to pay an entry fee to SD-3C, a significant proportion

## RELEVANT MARKETS

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1 parties for use with devices that contain slots made for SD Cards (the “SD Card market”). Such  
2 finished SD Cards are broadly used in interstate commerce for a range of applications, including  
3 particularly for data storage in digital cameras, PDAs, digital audio players, and other electronic  
4 devices equipped with an SD Card slot. Millions of such devices have been sold, and continue  
5 to be sold, in the United States. Consumers with devices equipped with a SD card slot generally  
6 would regard an SD Card as the only option for use in the devices. Most consumers who  
7 operate a device that has an SD Card slot would not regard any memory card other than an SD  
8 Card as a reasonably interchangeable for the memory card required by that device. Even if an  
9 MMC Card could be used in an SD Card slot in some devices, this is not true for all devices  
10 with SD Card slots. Even for devices with an SD Card slot that could technically accept an  
11 MMC Card, most consumers would in any event not be aware of that technical substitutability.  
12 Those customers would not regard an MMC Card as interchangeable in use even for devices  
13 that technically might be able to use an MMC Card in lieu of an SD Card.

14 118. There is a relevant antitrust market in the sale of finished second  
15 generation SD Cards, such as miniSD and microSD Cards, to third parties for use with devices  
16 that contain slots that require second generation SD Cards (the “Second Generation SD Card  
17 market”; collectively with the “SD Card Market” the “SD Card Markets”). In such devices, the  
18 Second Generation SD Cards will be the only available option for operating the device in  
19 conjunction with a flash memory card. Such finished Second Generation SD Cards are broadly  
20 used in interstate commerce for a range of applications, including particularly for data storage in  
21 smaller sized electronic devices, such as mobile telephones, equipped with a Second Generation  
22 SD Card slot. Millions of such devices have been sold, and continue to be sold, in the United  
23 States. Consumers with devices equipped only with a Second Generation SD card slot would  
24 not regard any other kind of flash memory card as a reasonably interchangeable alternative to a  
25 Second Generation SD Card.

26 119. There is a separate relevant antitrust market in the technology used in the  
27 production of SD Cards, consisting of technology developed for this end-use or that might be  
28 applied toward this end-use (the “SD Card Technology market”). The SD Card Specification

1 requires that certain SD Card functions be implemented either by a specific technology or by a  
 2 particular solution for which the technological options are limited. The technologies required  
 3 by the Specification or capable of providing a solution required by the Specification are not  
 4 reasonably interchangeable with other technologies.

5 120. There is a separate relevant antitrust market in the technology used in the  
 6 production of flash memory cards (the “Flash Memory Card Technology market”). This  
 7 includes not only technology used in the production of SD Cards but also technology used in the  
 8 production of other flash memory card formats. The technologies included in the Flash Memory  
 9 Card Technology market are not reasonably interchangeable with other technologies that are not  
 10 suitable for use in flash memory cards.

11 121. There are no barriers to the interstate sale or exchange of SD Cards, SD  
 12 Card Technology or Flash Memory Card Technology. Accordingly, in each case above, the  
 13 relevant geographic market is the United States and its territories, or, alternatively, the world.  
 14 Competition among SD Cards and technology occurs on a uniform basis throughout the United  
 15 States and throughout the world.

## 16 CAUSES OF ACTION

### 17 CLAIM I

#### 18 Agreement in Restraint of Trade in Violation of Section 1 of the Sherman 19 Act against Panasonic and SD-3C LLC (in the SD Card Markets)

20 122. Plaintiff hereby incorporates by reference Paragraphs 1 through 121 of this  
 21 Complaint, as though fully set forth herein.

22 123. Panasonic, SD-3C and the other members of the SD Group entered into a  
 23 continuing contract, combination, agreement, and/or conspiracy to unreasonably restrain trade  
 24 and commerce in the markets for SD Cards.

25 124. By agreeing to require industry participants wishing to manufacture SD  
 26 Cards to execute an SD Memory Card License and at a single price, Panasonic, the other  
 27 members of the SD Group and SD-3C have raised the costs of other manufacturers of SD Cards,  
 28 thereby reducing competition in the SD Card markets. The SD Card License requires SD Card

1 manufacturers to pay a royalty of 6 percent on net sales of all SD Cards, but the SD Group  
2 members have exempted themselves from this fee. The entry fee required by the SD Card  
3 License insulates SD Group members from competition in the SD Card market by giving them a  
4 permanent cost advantage over rival manufacturers. The adverse effect of this cost advantage  
5 on competition in the SD Card market is exacerbated by the additional royalties that SD Group  
6 members separately demand from competitors for licenses to their flash memory patents. As a  
7 result of their strategy of raising the costs of rival manufacturers, the SD Group members have  
8 been able to establish and maintain a dominant position in the SD Card markets. Through their  
9 dominant position the members of the SD Group have sought to impose increasingly onerous  
10 and anticompetitive terms on potential licensees, including—since September 2006—terms that  
11 would have the effect of stabilizing SD Card prices. These agreements to restrain competition  
12 are ongoing and continuing.

13           125. The anticompetitive effects of the agreement between Panasonic, SD-3C  
14 and the other members of the SD Group are not offset by any countervailing benefits. Absent  
15 the agreement between the members of the SD Group, other industry participants were ready  
16 and willing to develop a flash memory card with substantially the same functionality of an SD  
17 Card. Panasonic, SanDisk and Toshiba have made no showing that their agreement to jointly  
18 develop and jointly license flash memory card technology has cleared blocking patent positions  
19 held by those companies. The single, pooled license offered by SD-3C does not enhance  
20 licensing efficiency by eliminating the need for multiple licenses. On information and belief,  
21 the key patent rights covering flash memory used in SD Memory Cards are claimed by the SD  
22 Group members. By its terms, however, the SD Card License excludes these rights, thereby  
23 requiring that companies that wish to manufacture SD Cards seek separate licenses for flash  
24 memory technology from each of Panasonic, SanDisk and Toshiba.

25           126. The unreasonable restraint of trade created by Defendants' agreement, and  
26 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
27 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
28 property.



127. An actual, justiciable controversy appropriate for damages and declaratory relief exists among the parties.

**CLAIM II**  
**Agreement in Restraint of Trade in Violation of Section 1 of the Sherman Act**  
**against Panasonic and SD-3C LLC**  
**(in the SD Card Technology Market)**

128. Plaintiff hereby incorporates by reference Paragraphs 1 through 127 of this Complaint, as though fully set forth herein.

129. Panasonic, SD-3C and the other members of the SD Group entered into a continuing contract, combination, agreement, and/or conspiracy to unreasonably restrain trade and commerce in the SD Card Technology market.

130. Panasonic conspired with SanDisk and Toshiba to manipulate the SD Card Specification by arbitrarily requiring the use of patent rights owned by SD Group members to implement non-central features of the card. The SD Group members, through SD 3-C, also required all other industry participants wishing to manufacture SD Cards to execute an SD Memory Card License. By this means, the SD Group members have agreed on a single price that all three SD Group members will charge for their technology related to SD Cards. By the same means, the SD Group members have foreclosed competition from alternative technologies that, absent the SD Group members' manipulation of the SD Specification, could be used to implement aspects of that Specification. In addition, Panasonic and SD-3C have agreed with the other members of the SD Group to include in the SD Card License a discriminatory grantback provision that has the purpose and effect of discouraging licensees from developing SD Card technologies that might compete with the technologies owned by SD Group members. As the SD Card standard has gained broader market acceptance, the SD Group members, working through SD-3C, have sought to exploit their control of purportedly essential technology to impose increasingly onerous and anticompetitive terms—since September 2006—on current licensees, such as Samsung, and potential licensees.

131. For the reasons set forth above, including in paragraph 125, the anticompetitive effects of the agreement between Panasonic, SD-3C and the other members of



1 the SD Group are not offset by any countervailing benefits.

2 132. The unreasonable restraint of trade created by Defendants' agreement, and  
3 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
4 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
5 property.

6 133. An actual, justiciable controversy appropriate for damages and declaratory  
7 relief exists among the parties.

8 **CLAIM III**  
9 **Agreement in Restraint of Trade in Violation of Section 1 of the Sherman**  
10 **Act against Panasonic and SD-3C LLC**  
**(in the Flash Memory Card Technology Market)**

11 134. Plaintiff hereby incorporates by reference Paragraphs 1 through 133 of this  
12 Complaint, as though fully set forth herein.

13 135. Panasonic and SD-3C entered into a continuing contract, combination,  
14 and/or conspiracy with the other members of the SD Group to unreasonably restrain trade and  
15 commerce in the market for Flash Memory Card Technology.

16 136. Panasonic, SanDisk and Toshiba were significant horizontal competitors in  
17 the Flash Memory Card Technology market. Prior to their agreement to form the SD Group, the  
18 three companies developed competing flash memory card technologies and reached independent  
19 decisions on whether and at what price to license those technologies to other industry  
20 participants. Following their independent business judgment, each company supported open  
21 standard-setting initiatives as a means of encouraging industry adoption of the flash memory  
22 card technologies they had developed.

23 137. Panasonic's agreement with the other SD Group members and SD-3C has  
24 caused anticompetitive effects in the Flash Memory Card Technology market. Acting in  
25 furtherance of their agreement designed to achieve control over the SD Card and to make that  
26 card the dominant industry standard, Panasonic, SanDisk and Toshiba have agreed not to  
27 support the development of formats that could compete with the SD Card, thereby discouraging  
28 the development of new flash memory card technologies. Panasonic's participation in this

1 agreement has denied the potential sponsors of new flash memory card technologies the  
 2 cooperation of an important manufacturer (Panasonic Corp.) and distributor (PNA) of host  
 3 devices, creating a significant barrier to the propagation of new formats. By agreeing to include  
 4 a discriminatory grantback provision in the SD Card License, and by continuing efforts to  
 5 require current and potential manufacturers of SD cards to execute this license, the SD Group  
 6 members have reduced the incentive of other industry participants to develop alternative flash  
 7 memory card technologies. Individual members of the SD Group have sought to impair the  
 8 ability of other formats, in particular the MMC card, to compete effectively. On information  
 9 and belief, the relevant conduct of these SD Group members was known and approved by the  
 10 Group's other members. These agreements to restrain competition are ongoing and continuing.

11 138. For the reasons set forth above, including in paragraph 125, the  
 12 anticompetitive effects of the agreement between Panasonic, SD-3C and the other members of  
 13 the SD Group are not offset by any countervailing benefits.

14 139. The unreasonable restraint of trade created by Defendants' agreement, and  
 15 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
 16 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
 17 property.

18 140. An actual, justiciable controversy appropriate for damages and declaratory  
 19 relief exists among the parties.

20 **CLAIM IV**  
 21 **Monopolization in Violation of Section 2 of the Sherman Act**  
 22 **against SD-3C LLC**  
**(SD Card Technology Market)**

23 141. Plaintiff hereby incorporates by reference Paragraphs 1 through 140 of this  
 24 Complaint, as though fully set forth herein.

25 142. SD-3C holds monopoly power in the market for SD Card Technology.  
 26 SD-3C licenses substantially all of the purportedly essential patent claims covering SD Cards  
 27 under the Specification developed by the SD Group members. On information and belief, other  
 28 members of the SDA have not identified any patent rights owned by them that are essential for

1 manufacture of SD Cards under the Specification.

2 143. SD-3C has engaged in exclusionary conduct in order to acquire and  
 3 maintain this monopoly power. It has collaborated in the manipulation of the Specification by  
 4 the members of the SD Group, by representing patent rights owned by SD Group members as  
 5 essential for implementation of the Specification and collecting royalties on that basis. It has  
 6 failed to disclose fully all the patents owned by SD Group members that the SD Group members  
 7 and SD-3C claim to be essential for implementation of the Specification. It has coerced  
 8 industry participants into taking an SD Card License that imposes a supra-competitive royalty  
 9 fee on companies other than the members of the SD Group and incorporates a discriminatory  
 10 grantback provision, requiring licensees to give SD Group members royalty-free access to any  
 11 essential patent claims the licensees may themselves develop covering SD Cards. This  
 12 grantback provision has the purpose and effect of depriving competitors of the incentive to  
 13 develop competing SD Card technologies. Using its monopoly power, SD-3C has sought to  
 14 impose increasingly onerous and anticompetitive terms on potential licensees, including—since  
 15 September 2006—terms that would have the effect of stabilizing SD Card prices.

16 144. Defendant's unlawful monopoly in the SD Card Technology market and  
 17 the effects thereof continue.

18 145. An actual, justiciable controversy appropriate for damages and declaratory  
 19 relief exists among the parties.

20 **CLAIM V**  
 21 **Conspiracy to Monopolize in Violation of Section 2 of the Sherman Act**  
 22 **against Panasonic and SD-3C LLC**  
**(SD Card Technology Market)**

23 146. Plaintiff hereby incorporates by reference Paragraphs 1 through 145 of this  
 24 Complaint, as though fully set forth herein.

25 147. Panasonic and SD-3C conspired with the other members of the SD Group  
 26 unlawfully to acquire monopoly power in the market for SD Card Technology, in violation of  
 27 Section 2 of the Sherman Act, 15 U.S.C. § 2. Defendants entered into this conspiracy with the  
 28 specific intent of obtaining by unlawful means a monopoly in this market.

148. Defendants have each committed one or more overt acts in furtherance of the conspiracy to monopolize the SD Card Technology market. Panasonic has joined with SanDisk and Toshiba to exclude and disadvantage rivals by, among other things, (1) agreeing to jointly replace an existing open standard format with the SD Card and then to jointly license their rights to that card at a single price; (2) manipulating the SD Specification to arbitrarily require the use of their own patents and foreclose other potential competing formats; (3) requiring companies that want to manufacture or sell SD Cards to enter into the SD License with SD-3C; (4) requiring users of SD Card Technology, other than themselves, to pay an anticompetitive entry fee under the SD Card License; and (5) imposing on licensees a discriminatory grantback provision that discourages the development of competing SD Card technologies. SD-3C has enforced the SD Group members' anticompetitive scheme, including its unequal licensing and grant-back provisions, in furtherance of the objectives of the conspiracy.

149. Panasonic and the SD Group members' unlawful conspiracy to monopolize and the effects thereof continue.

150. An actual, justiciable controversy appropriate for damages and declaratory relief exists among the parties.

**CLAIM VI**  
**Declaratory Judgment of Unenforceability for Patent Misuse**  
**by Panasonic and SD-3C LLC**

151. Plaintiff hereby incorporates by reference Paragraphs 1 through 150 of this Complaint, as though fully set forth herein.

152. By its terms, the SD Card License offered by SD-3C on behalf of Panasonic and the other SD Group members does not grant rights to the flash memory technology needed to manufacture an SD Memory Card.

153. The SD Card License requires the payment of royalties calculated as a percentage of the total value of the SD Card, including the memory.

154. SD-3C offered the SD Card License to Samsung as a non-negotiable

1 proposal, and used the leverage of its purported patent rights to coerce Samsung into accepting  
2 the license terms.

3 155. The price of SD Cards varies in proportion to the amount of flash memory  
4 they contain.

5 156. The SD Card License accordingly extracts a royalty based on non-licensed  
6 goods. A patentholder engages in patent misuse when it charges royalty on an unlicensed good  
7 or the unlicensed component of a good. Accordingly, Panasonic's conduct constitutes unlawful  
8 patent misuse and renders the patents covered by the SD Card License unenforceable.

9 157. This patent misuse, and the effects thereof, continue.

10 158. An actual, justiciable controversy appropriate for declaratory relief exists  
11 among the parties.

12 **CLAIM VII**  
13 **Unfair Competition Under California Business and Professions Code Section 17200 et seq.**  
14 **against Panasonic**

15 159. Plaintiff hereby incorporates by reference Paragraphs 1 through 158 of this  
16 Complaint, as though fully set forth herein.

17 160. The acts and conduct of Panasonic as alleged above in this Complaint  
18 constitute methods of unlawful, unfair, and/or fraudulent business practice as defined by  
19 California Business & Professions Code Section 17200.

20 161. Panasonic's acts and practices, as described above, amount to an unlawful  
21 business act or practice under Section 17200 in at least the following respects. Panasonic (1)  
22 entered into a continuing contract, combination, and/or conspiracy to unreasonably restrain trade  
23 and commerce; (2) manipulated the standard-setting process to raise costs to rivals and  
24 significantly threaten or harm competition; (3) required non-negotiable and discriminatory  
25 grantback requirements on SD Card licensees; and (4) thereby foreclosed the development of  
26 other flash memory card technologies.

**CLAIM VIII**  
**Violation of the Cartwright Act,**  
**California Business and Professions Code Section 16700 et seq.**  
**against Panasonic**

162. Plaintiff hereby incorporates by reference Paragraphs 1 through 161 of this Complaint, as though fully set forth herein.

163. Panasonic has, through the acts and conduct described herein, entered into an unlawful trust as defined by California Business & Professions Code Sections 16720 and 16726.

164. Panasonic and the SD Group member entered into a combination with the purpose of restraining competition by, among other things: (1) limiting or reducing the production of and/or increasing the price of flash memory card technology, SD Card technology and SD Cards; (2) preventing competition in the sale of flash memory card technology, and SD Cards; and (3) fixing the price of SD Card technology;

165. As a result of Panasonic's actions, trade and commerce have been restrained in the following markets: (1) the Flash Memory Card Technology Market; (2) the SD Card Technology Market; and (3) the SD Card Market.

166. Plaintiff has been harmed by Panasonic's unlawful conduct, by being required to pay higher royalties for the production of SD Cards than it would have in a free and competitive market, and through foreclosure of its ability to sell SD Cards and components to its customers.

167. Such effects are continuing and will continue until injunctive relief is granted.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff seeks the following relief:

1. Pursuant to 28 U.S.C. § 2201, a declaration that Panasonic and SD-3C have unreasonably restrained trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1;

2. Pursuant to 28 U.S.C. § 2201, a declaration that the SD Card License is an unreasonable restraint of trade that violates Section 1 of the Sherman Act, 15 U.S.C. § 1;

1                   3. Pursuant to 28 U.S.C. § 2201, a declaration that SD-3C has monopolized the  
2 market for SD Card Technology in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;

3                   4. Pursuant to 28 U.S.C. § 2201, a declaration that Panasonic and SD-3C have  
4 engaged in a conspiracy to monopolize the SD Card Technology market in violation of Section  
5 2 of the Sherman Act, 15 U.S.C. § 2;

6                   5. Pursuant to 28 U.S.C. § 2201, a declaration that the royalty provision of the  
7 SD Card License constitutes patent misuse and that all patents covered by the license are  
8 unenforceable;

9                   6. Restitution of all sums paid as royalties by Samsung under the SD Card  
10 License since the execution thereof;

11                  7. Pursuant to 28 U.S.C. § 2202, such further relief as may be necessary or  
12 proper based upon the Court's declaratory judgment;

13                  8. Pursuant to 15 U.S.C. § 15, trebled damages resulting from Panasonic's and  
14 SD-3C's violations of the Sherman Act;

15                  9. Injunctive relief preventing and restraining Defendants from collecting  
16 royalties on SD Cards manufactured by third parties;

17                  10. Pursuant to California Business & Professions Code Sections 16750 and  
18 17203, restitution of royalties paid by Samsung under the SD Card License since the date of  
19 execution and an injunction to prevent Panasonic's continued acts of unfair competition;

20                  11. Pre-judgment and post-judgment interest at the maximum legal rate;

21                  12. Plaintiff's costs, expenses, and reasonable attorneys' fees in bringing this  
22 action; and  
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1 13. Such other relief as the Court may deem just and proper.

2  
3 Dated: October 14, 2010

COVINGTON & BURLING LLP

4  
5 By: /s/  
6 Simon J. Frankel  
7 Attorneys for Plaintiff  
SAMSUNG ELECTRONICS CO., LTD.

8 **DEMAND FOR JURY TRIAL**

9 Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff demands a trial  
10 by jury.

11  
12 Dated: October 14, 2010

COVINGTON & BURLING LLP

13  
14 By: /s/  
15 Simon J. Frankel  
16 Attorneys for Plaintiff  
SAMSUNG ELECTRONICS CO., LTD.